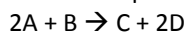


T06D04 – 6.2 SL IB Review HW

Name.....

1. The table shows the concentrations of reactants and products during this reaction.



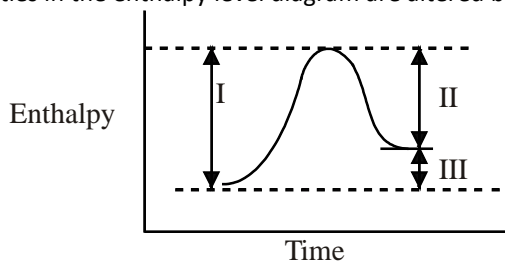
	[A] / mol dm ⁻³	[B] / mol dm ⁻³	[C] / mol dm ⁻³	[D] / mol dm ⁻³
at the start	6	3	0	0
after 1 min	4	2	1	2

The rate of reaction can be measured by reference to any reactant or product. Which rates are correct for this reaction?

- I. rate = $-2 \text{ mol dm}^{-3} \text{ min}^{-1}$ for A
 II. rate = $-1 \text{ mol dm}^{-3} \text{ min}^{-1}$ for B
 III. rate = $-1 \text{ mol dm}^{-3} \text{ min}^{-1}$ for C
- A. I and II only
 B. I and III only
 C. II and III only
 D. I, II and III

(Total 1 mark)

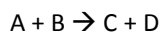
2. Which quantities in the enthalpy level diagram are altered by the use of a catalyst?



- A. I and II only
 B. I and III only
 C. II and III only
 D. I, II and III

(Total 1 mark)

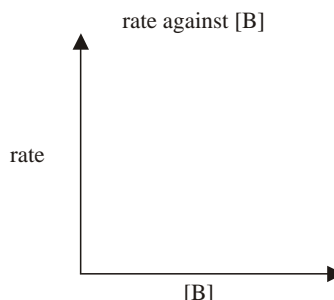
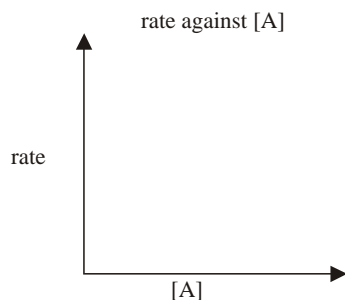
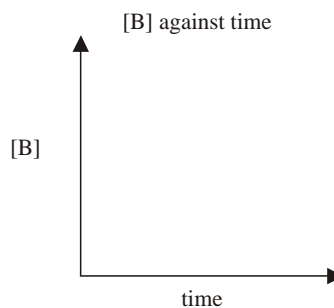
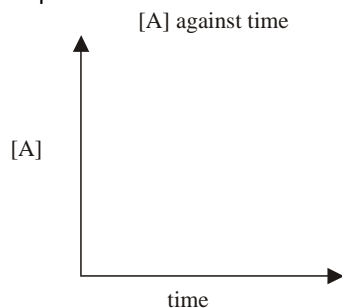
3. The reaction between two substances A and B



has the following rate expression:

$$\text{rate} = k [B]$$

Draw the graphical representation of:



(Total 3 marks)

4. (i) Draw a graph that shows the distribution of molecular energies in a sample of a gas at two different temperatures, T_1 and T_2 , such that T_2 is greater than T_1 .

(2)

- (ii) Define the term *activation energy*.

(1)

- (iii) State and explain the effect of a catalyst on the rate of an endothermic reaction. Also, draw a graph showing the change of adding the catalysts.

(4)

(Total 7 marks)